

DRAFT

Technical Analysis Process - Attainment & Boundary Recommendations

The purpose of this paper is to define how ADEQ will perform a technical analysis toward supporting recommendations with respect to 8-hour attainment status and boundaries.

It will be necessary for the Governor to recommend either a status of attainment, non-attainment, or unclassifiable for all areas within the borders of Arizona, excluding Indian Country, as they relate to the 8-hour ozone standard. The default approach is based on Metropolitan Statistical Area (MSA) boundaries. So, for example, any MSA that contains a site that violates the 8-hour standard would be designated non-attainment in its entirety in the absence of the State of Arizona recommending something else to EPA. Given the size of MSAs in Arizona and the relationship of their boundaries to air flow, this may not be the optimal approach to managing air quality.

In any case, the first step in this work will be to define the three MSAs in Arizona as attainment or non-attainment. Based on the most current three years of data (Attachment 1), 2000-2002, the Tucson and Yuma MSAs would be designated as being in attainment of the 8-hour ozone standard and the Phoenix MSA would be non-attainment.

The next step will be to determine whether the political boundaries defining the MSAs are most effective at managing emissions toward attaining or maintaining the 8-hour ozone standard. EPA developed guidance on this process that is expressed in a memo from John S. Seitz, dated March 29, 2000. This memo suggests criteria for an analysis to justify boundaries other than the MSA:

- Emissions and air quality in adjacent areas
- Population density and degree of urbanization including commercial development
- Monitoring data representing ozone concentrations in local areas
- Location of emission sources
- Traffic and commuting patterns
- Expected growth
- Meteorology
- Geography/topography
- Jurisdictional boundaries
- Level of control of emission sources
- Regional emission reductions

Information like that listed above is intended to assist in identifying areas that either: 1) violate or are likely to violate the 8-hour ozone standard; or 2) are characterized by emissions of oxides of nitrogen or organic compounds that can contribute to ozone formation.

In undertaking analyses to support the determination of non-attainment and/or attainment area

boundaries for the Phoenix-Mesa MSA, considering the above criteria, ADEQ will:

- Evaluate monitoring data with emphasis on sites that have violated the standard within the last five years;
- Evaluate recent trends in ambient concentrations;
- Perform ozone modeling;
- Account for the effect of existing and future control programs that affect emissions of oxides of nitrogen and organic compounds;
- Consider existing non-attainment area boundaries and control programs;
- Assess commuting patterns for areas where a significant number of people work in an urban area but live outside it;
- Account for future population growth and industrial development.

A report will be developed that summarizes the results of these analyses in the context of the stated EPA criteria, and suggests possible boundaries for each attainment and non-attainment area in Arizona. In addition, other non-urban areas of the state will be evaluated as time allows, but will likely be recommended as unclassifiable because of a lack of ambient data.